

**REMARKS**

The foregoing amendment cancels claims 1-27, 41 and 46-47 and amends claims 28, 34, 40, 42, 43 and 48. Pending in the application are claims 28-40, 42-45 and 48-49, of which claims 28, 34, 40 and 48 are independent. The following comments address all stated grounds for rejection and place the presently pending claims, as identified above, in condition for allowance.

Independent claims 28 and 34 are amended to clarify that the display layer of each electronic label in the system displays information related to items on the shelf.

Independent claim 40 is amended to include the subject matter of canceled dependent claim 41. Consequential amendments are made to claims 42 and 43 to change the dependencies of these claims to depend from claim 40.

Claim 49 is amended to depend from claim 48. *No new matter is added.*

Amendment and/or cancellation of the claims are not to be construed as an acquiescence to any of the objections/rejections set forth in the instant Office Action, and were done solely to expedite prosecution of the application. Applicants reserve the right to pursue the claims as originally filed, or similar claims, in this or one or more subsequent patent applications

**Double Patenting Rejections**

Claims 1-49 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of copending Application No. 09/393,553. The Examiner also provisionally rejects claims 1-49 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of copending Application No. 09/760,363 (now U.S. Patent Number 6,753,830).

Applicant traverses the provisional obviousness-type double patenting rejection of the claims as being unpatentable over the claims of copending Application No. 09/393,553 and U.S.

Patent Number 6,753,830, which is based on Application No. 09/760,363. The claims of the present application are patentably distinct from the claims of copending Application No. 09/393,553 and U.S. Patent Number 6,753,830. For example, pending claims 28-33 of the present application recite a flexible antenna strip connected to a shelf, a feature not claimed in the co-owned patent and patent application. Claims 48 and 49 recite a label having a radio-frequency identification (RFID) layer, a feature also not solely claimed in the co-owned patent and patent application. Claims 28-39 of the present application also recite a shelf, which is not claimed by the cited co-owned applications.

The claims of copending Application No. 09/393,553 recite an electronic ink comprising an arrangement of microcapsules disposed on a support, a feature not found in claims 20, 104 and 125 of the present application, which recite an electronic ink comprising a bi-stable, non-volatile imaging material. Furthermore, the claims of the U.S. Patent Number 6,753,830 recite a stacked, layered electronic label comprising a plurality of cooperative layers, a feature not disclosed in the claims of the present application.

If necessary, Applicant will file a terminal disclaimer to overcome the double patenting rejection.

#### **Claim Rejection Under 35 USC § 112**

Regarding the rejection of claim 49 under 35 U.S.C. 112 for reciting a limitation without antecedent basis, Applicant has amended claim 49 to depend from claim 48, which provides sufficient antecedent basis for the recitation “the RFID layer” in lines 5 and 8.

#### **Claim Rejections Under 35 USC § 102**

In the Office Action, the Examiner rejects claims 1-6, 9-18, 21-25, 27-30, 33-45 and 48 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Number 6,639,578 of Comiskey et al. Claims 46 and 47 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Number 6,473,072 of Comiskey et al. Applicant respectfully traverses the rejection and submits

that the presently pending claims distinguish patentably over both the Comiskey '578 reference and the Comiskey '072 reference.

The cited references, alone or in combination, do not teach or suggest an electronic labeling system for displaying information related to items on a shelf that comprises a flexible antenna strip connected to the shelf and one or more electronic labels coupled to the flexible antenna strip, as recited in independent claim 28. The flexible antenna strip recited in claim 28 communicates with the one or more electronic labels regarding the information related to items on the shelf to be displayed by the display layer of each label. The use of a flexible antenna strip allows for application of the antenna strip in a suitable and discrete location relative to a shelf. The antenna strip may be attached at a location within a specified distance of a label to allow for communication between the antenna and the label regarding information to be displayed by the label. A transceiver may couple the antenna strip to a central control system and receives and sends signals to the antenna strip regarding the information related to items on the shelf to be displayed by the label.

The Comiskey '578 reference does not teach or suggest that the antenna 302 shown in Figures 6A can be in the form of a *flexible strip*, as recited in claim 28. The Comiskey '578 reference also does not teach or suggest that the antenna can be connected to a *shelf*, as also recited in claim 28.

The cited Comiskey references also do not teach or suggest an electronic shelf label that is coupled to a shelf and displays information related to at least one item on the shelf, as recited in independent claim 34. As recognized by the Examiner, the Comiskey '578 reference discloses use of the described display material in a sign in a supermarket. The Comiskey '578 reference does not, however, disclose a *label* coupled to a shelf that stores items, about which the label displays information. There is no teaching or suggestion that the display systems described in the Comiskey '578 can be coupled to a shelf.

The cited Comiskey references also fail to teach or suggest an electronic label including a *rechargeable* battery, as recited in independent claim 40. There is no teaching or suggestion that the power source 410 in Comiskey '578 reference may be recharged. In the present invention,

the use of a rechargeable battery may significantly extend the lifetime of the electronic label, a feature not contemplated by the Comiskey references.

The cited Comiskey references do not teach or suggest an electronic label including an RFID layer, as set forth in independent claim 48. As set forth in the specification on page 15, lines 2-9, RFID is a wireless communications device that transmits and receives data via *two-way* radio. An RFID layer includes a transceiver and an antenna to facilitate both transmission and reception of data related to the information to be displayed by the display layer 30. The RFID layer may communicate with a remote controller or device, such as a personal computer or a PDA, which runs an application program that controls and interfaces with the RFID equipment and provides instructions regarding the information to be displayed by the display layer of the claimed electronic label.

According to the Examiner, because the Comiskey '578 reference discloses a radio-controlled display, claim 48 is anticipated. However, the Comiskey '578 reference merely discloses a display system that can *receive* information via radio signals, but cannot transmit radio signals. Therefore, the Comiskey '578 label system does not include a RFID layer, as recited in claim 48.

Moreover, none of the Comiskey references teaches or suggests a label comprising a plurality of *stacked layers*, in particular a display layer, an integrated circuit layer and an RFID layer stacked together to form a stacked electronic label, as further recited in claim 48.

### **Claim Rejections Under 35 USC § 103**

Regarding the rejection of claims 7, 8, 19, 20, 26, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Comiskey et al., claims 7, 8, 19, 20, 26 are canceled, rendering the rejection moot. Regarding the rejection of claims 31 and 32, Applicants submit that independent claim 28, from which claims 31 and 32 depend, is patentable over the cited references. Therefore, claims 31 and 32 are patentable as well. Furthermore, Applicants maintain that the substitution of inductive power coupling and/or capacitive coupling for radio signaling is not obvious in view of either Comiskey reference. There is no teaching or

suggestion in any of the cited references that inductive coupling and capacitive coupling are obvious substitutes for radio signaling. Furthermore, there is no motivation to modify the radio signaling described in the Comiskey '578 reference for another form of coupling.

Claims 46, 47 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Comiskey et al. ('578) in view of Comiskey et al ('072). Claims 46 and 47 are canceled, rendering the rejection moot. Claim 49 depends from claim 48, which Applicants maintain is patentable over the cited references. Furthermore, even in combination, the cited references do not teach or suggest RFID layer communicates with a central controller regarding the information to be displayed by the label.

For at least the foregoing reasons, Applicant respectfully submits that all pending claims distinguish patentably over the cited references and requests that the rejections be reconsidered and withdrawn.


**CONCLUSION**

In view of the above amendment, applicant believes the pending application is in condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue. If, however, the Examiner considers that obstacles to allowance of these claims persist, we invite a telephone call to Applicants' representative at the telephone number listed below.

An appropriate Petition for Extension of Time is being filed concurrently herewith. Applicants believe no additional fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 12-0080, under Order No. VTW-007 from which the undersigned is authorized to draw.

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Respectfully submitted,

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